

**Meadowlands Plating and Finishing Site  
East Rutherford, NJ.**

OK PZK 12/16/98

**Approach**

It is Earth Tech's recommendation that the tasks that are to be performed in clean up efforts at the Meadowlands Plating facility be addressed in a way that the cyanide waste that is located and disposed of as the first priority. The reasoning for this is to eliminate the highest risk contaminant from the site. In order to reach this goal there are tasks that will need to transpire prior to locating and packaging the cyanide wastes. These tasks are CRZ set up, waste collection from the exterior of the building and Roll off waste segregation and clean up. Earth Tech recommends that exterior operations be completed prior to interior operations before weather conditions deteriorate and stop progress. Clean up efforts will then be focussed on the Sampling, segregation, containerizing as necessary, and staging of drums, treating of liquids in tanks, vats, and sumps that can be treated. The remaining solid waste and untreatable liquid waste will then be containerized and disposed of in licensed and compliant facilities.

**CRZ set up 1 day**

**Personnel** 2 technicians, 1 foreman.

**Equipment-** Hilti Gun, Staple guns

**Supplies-** Poly, lumber, duct tape, staples, Hilti gun nails and charges.

The CRZ will be set up in the existing lunch room with an airlock set up at the entry to the CRZ from the Hot zone. De-suiting of outer PPE will take place outside the air lock and inner PPE will be removed in the air lock. A mask wash station will be placed outside the air lock in line with the exit of the air lock. An additional air lock is to be built at the door that connects the office areas to the process/warehouse areas.

**Staging Area for containerized waste 2 days**

**Personnel-** 2 technicians, 1 foreman-operator.

**Equipment-** Fork lift, chains, slings, pressure washer, garden hoses, squeegees.

An area in the South end of the warehouse and process areas will be cleared of debris and the floors will be pressure washed for cleaning. All water will be collected in the existing sumps in the process area by using squeegees to push water to the sumps.

If pressure washing is not feasible due to the possibility of freezing water, the crew will use a floor sweeping compound and sweep the floor surfaces towards the sumps. The sweepings can then be collected by shovels and placed in containers for staging with the solids.

The staging areas for waste will be divided by solids, liquids, and the pH of the materials.

**Exterior Operations**

**Roll Offs 3 days**

**Personnel-** 2 technicians, 1 foreman.

**Equipment-**

**Supplies-** poly sheeting.

The site currently has 3 roll offs of waste and 3 roll offs of debris.

The three roll offs that contain waste will be covered and left until the OSC has determined we are to take action to have them disposed of. If this becomes necessary, the plan of action is listed below.

The 3 that contain the waste will have the water pumped off into drums and then composite samples taken and will be checked visually for the suspected mercury. The roll offs will need to be checked for deterioration and weights to see if they will be shippable as they now exist. The samples will go to the laboratory for analysis. The waste in these roll offs will be profiled and then disposal will be set up for this waste.

The debris- trash roll offs will be partially emptied onto poly sheeting and the material will be segregated and non contaminated debris will be placed in these roll offs. Any drums or containers will be removed and set aside for future disposal in a proper waste stream.



**Exterior vat pumping- 1 day****Personnel- 2 technicians, 1 Foreman.****Supplies- Drum pump, drums, pallets**

There are 2 vats that are located on the exterior of the building and have fluids in them. The PH of the fluids is 2 and will be pumped into poly drums and staged in the warehouse.

The pumping of these fluids will take place in level B protection with a drum pump that is specifically made for pumping corrosive liquids.

**Under Ground Storage Tanks 1/2 day****Personnel- 2 technicians****Equipment- tools for tank opening, sampling tools , sample jars.**

The under ground storage tanks on the North side of the building will be sampled and analyzed and profiled for waste disposal. T&D bid to be written and put out for bid.

**Drum Collection on exterior of building. ½ day****Personnel- 1 Foreman, 3 technicians****Equipment - Fork lift, pallets, Over pack drum, Breathing air**

The drums located on the exterior of the building will be checked for integrity, volumes, and the PH. These drums will be over-packed as necessary and moved into the warehouse and staged according to characteristics.

**Emergency Lighting-smoke detectors****Electricians 1 day**

The emergency lighting required in the building has been checked and will need some repairs. These services will be provided through subcontracted electricians. The necessity for further actions for electrical work in the building may become necessary and will be procured at a later date.

**Gas utilities****HVAC systems inc.**

HVAC Systems has been contacted and will come in and cap any existing gas lines that are open and will isolate all appliances with valves. The gas will then be turned on by PSE&G and the heating units that are in the warehouse/process area will be checked for condition and used if possible. There are 4 units that are located in the ceiling in the process area by the loading dock and in the waste treatment room. Upon the inspection of these units in HVAC's visit, the unit in the waste treatment room was found to have holes in the heat exchanger and this renders the unit unfit and not repairable. The units by the loading dock appear to be operational but will need further investigation when the gas is turned on.

**Lab bid****Personnel- T&D coordinator, RM, Purchasing Dept.**

The lab bid will be written and Reviewed by the OSC. Bid is to be placed out for bid on or before 12/22/98.

A 7 day period will be given to perspective bidders. Due date and award will be no later than 01/04/98.

**Cylinder Inventory 1 day****Personnel- 1 Forman, 1 Technician**

Cylinders that are located in and around the facility are to be located ,staged , and information gathered in order to contact the owners and arrange for their pick up.

### **Interior**

#### **Warehouse floor cleaning**

**Personnel-** 1 Foreman, 3 technicians

**Supplies-** Brooms , Floor sweep compound, drums or cubic yard boxes.

The warehouse floors will be swept with a floor sweeping compound to remove the existing dust and contaminants that will become airborne during operations. This material to be collected and containerized. An alternative to sweeping will be using the Hepa vac to collect the dust from the floor surfaces. A more extensive and final cleaning of the floor surfaces will be executed at or near the end of the project. This cleaning will be a pressure washing method and can be executed during the sump clean up operation.

### **Interior Operations**

#### **Drum Collection 15 days**

**Personnel-** 1 foreman, 4 technicians , 1 operator.

The personnel will perform these functions.

Forman- oversight of crew

1 technician for breathing air station monitoring and decon.

2 technicians for sampling operations.

1 technician over-packing operations with the operator.

1 operator for fork lift operation and transport of drums to staging.

1 Forman- oversight and assistance.

The trailer with drummed waste will be moved to the loading dock if possible and the drums will be unloaded from the trailer and placed in the warehouse area for future sampling and segregation.

The drums that are located in the process area will be sampled, over packed as necessary, and staged in the staging area according to physical state and ph.

This process will continue throughout the building periodically until all drums have been sampled and staged.

#### **Sampling of waste in process vats. 2 days**

**Personnel-** 3 technicians , 1 Foreman

**Supplies-** Breathing Air , Sample Jars, thieves, scoops.

All remaining process vats will be sampled and Hazardous characterization test to be performed to allow for the waste to be placed into waste streams. Once characterization completed the waste streams can have composite samples made and sent to the lab for analysis. Profiling of the waste streams will occur after results from the lab are received . Transportation and disposal of the waste can then be set up for bulk quantities.

#### **Sampling of sumps -liquids and solids.**

#### **Lab Clean up 3 days**

**Personnel** 1 chemist, 2 technicians, 1operator

**Equipment-** Fork lift, Lab packing containers.

The lab area will be cleared of debris and all containers within will be identified by the chemist through labels and haz- cat operations. These items will be placed either into existing waste streams or segregated into lab pack groups for future disposal.

### **Haz- Cat operations - bench studies for treatments**

#### **Personnel- 1 chemist**

Hazardous Characterization of drum samples will be started during the collection and staging of the drums from the process areas. This operation will occur periodically throughout the duration of removal/clean up. Bench studies that will be conducted at the site in the in the Haz -catting area .

### **Waste treatment system and room 5 days**

Debris from floor areas is to be cleared and placed in warehouse for decontamination or disposal depending upon the material. Floors are to be cleared with shovels and materials collected containerized and staged with the solid waste streams.

The waste treatment system will be evaluated and tanks will be isolated with existing valves. The Electrical devices that are currently in place will be disconnected from the energy sources and removed as necessary. The waste and or treatment product will be Characterized and pumped out into drums or clean vats. These tanks will then be cleaned and made available for use in the treatment processes of waste streams that are designated for treatment. Upon completion of the cleaning the tanks will then be made ready for use in the treatment of the first selected waste to be treated.

### **Vat cleaning and liner removal 21 days**

#### **Personnel- 4 technicians, 1 foreman , 1 operator.**

#### **Supplies- Fork lift, Hoisting equipment.**

Vat cleaning operations will be performed upon the pumping out of the vats and the product or waste being treated. This will act as a rinsing of the vat. A garden hose with spray nozzle will be used where applicable. A second rinsing will occur when the vat is removed from the sump location. The vats will be picked up with fork lift or other equipment and suspended over the sumps for pressure washing to clean the inside of the vats as necessary. The liners will be removed and placed in a roll off for disposal. The process vats will then be moved to a cleared area for storage. All vats are to be turned upside down to prevent any fluids from being collected in these vats after cleaning.

### **Sump sludge cleaning- 14 days**

#### **Personnel- 1 operator , 4 technicians, 1 foreman.**

#### **Supplies- Fork lift, roll off, 2-hoppers, Shovels, buckets**

The cleaning of these sumps is to be carried via removal of sediment and sludge's via shovels into buckets and the buckets moved up and dumped into the hoppers. The hoppers will be moved via fork lift to the roll off. If the sludge's from the sumps cannot be placed into a roll off due to characteristic differences in the sludge's then the waste will be segregated and placed into drums instead of roll off's. Upon completion of the removal of the sludge's from the sumps the sumps will be pressure washed clean and waste water will be collected in a tank or existing vat. The waste water from cleaning will then be sampled and analyzed for treatment and or disposal.

### **Solid Waste Disposal.**

Solid waste that has been collected throughout the facility and that remain from treatment processes will be stabilized as much as possible and have analytical run to establish disposal options and parameters. Transportation and disposal of these materials can then be set up and all waste is to be sent to licensed and compliant facilities.

**Non treatable Liquid Waste**

All non-treatable liquid waste will be staged , sampled and characterized. As amounts of these materials increases and or the collection of these materials is completed, these materials will be composite sampled and sent to the lab for analysis. Transportation and disposal of these materials will then be bid out and then shipped to licensed and compliant facilities.

**Neutralized fluids-**

Treated fluids that are neutralized will be stored in pools or tankers. These fluids will be analyzed and upon meeting the discharge requirements could be discharged to the local POTW. An alternative to discharge would be sending these fluids to a facility for disposal. The plating facility appears to have an existing discharge system set up from the waste treatment room . This will require investigation to determine where the discharge point is and if discharging into the POTW or storm sewer. If permitting required for this discharging and at what parameters.